

PAYING THE COSTS OF CLIMATE CHANGE:

How closing coal loopholes can supply Western communities with much-needed revenues to fight wildfires, prepare for droughts, and adapt to a changing climate.



April 2015

Mountain communities are feeling the impacts of a changing climate. From reduced snowpack and protracted droughts to increased flood risk and more severe wildfires, towns and taxpayers across the West are bearing the growing financial costs of adapting to a changing climate.

And while taxpayers in mountain communities are absorbing the costs of carbon pollution, coal companies

who are mining and causing pollution on nearby federal lands are able to pay below market rates for taxpayer-owned resources. Tax loopholes and outdated federal royalty policies have allowed the coal industry to cheat American taxpayers out of more than \$1 billion a year in revenues¹ — revenues that could instead have helped our Western communities to deal with the costly challenges of a changing climate, and supported our schools, roads and other essential priorities.²

Tax loopholes and outdated federal royalty policies have allowed the coal industry to cheat American taxpayers out of more than \$1 billion a year in revenues.

**\$ 1
BILLION**

CLIMATE CHANGE IS TAKING A MAJOR TOLL ON MOUNTAIN TOWN ECOSYSTEMS & ECONOMIES

The Mountain West is experiencing more severe environmental impacts from climate change than almost any other part of the United States. **From 2003 to 2007, the 11 western states warmed 70% more than the rest of the world as a whole.**³ Nowhere is this impact felt more than in water supplies — the warming has led to decreases in snowpack, reduced

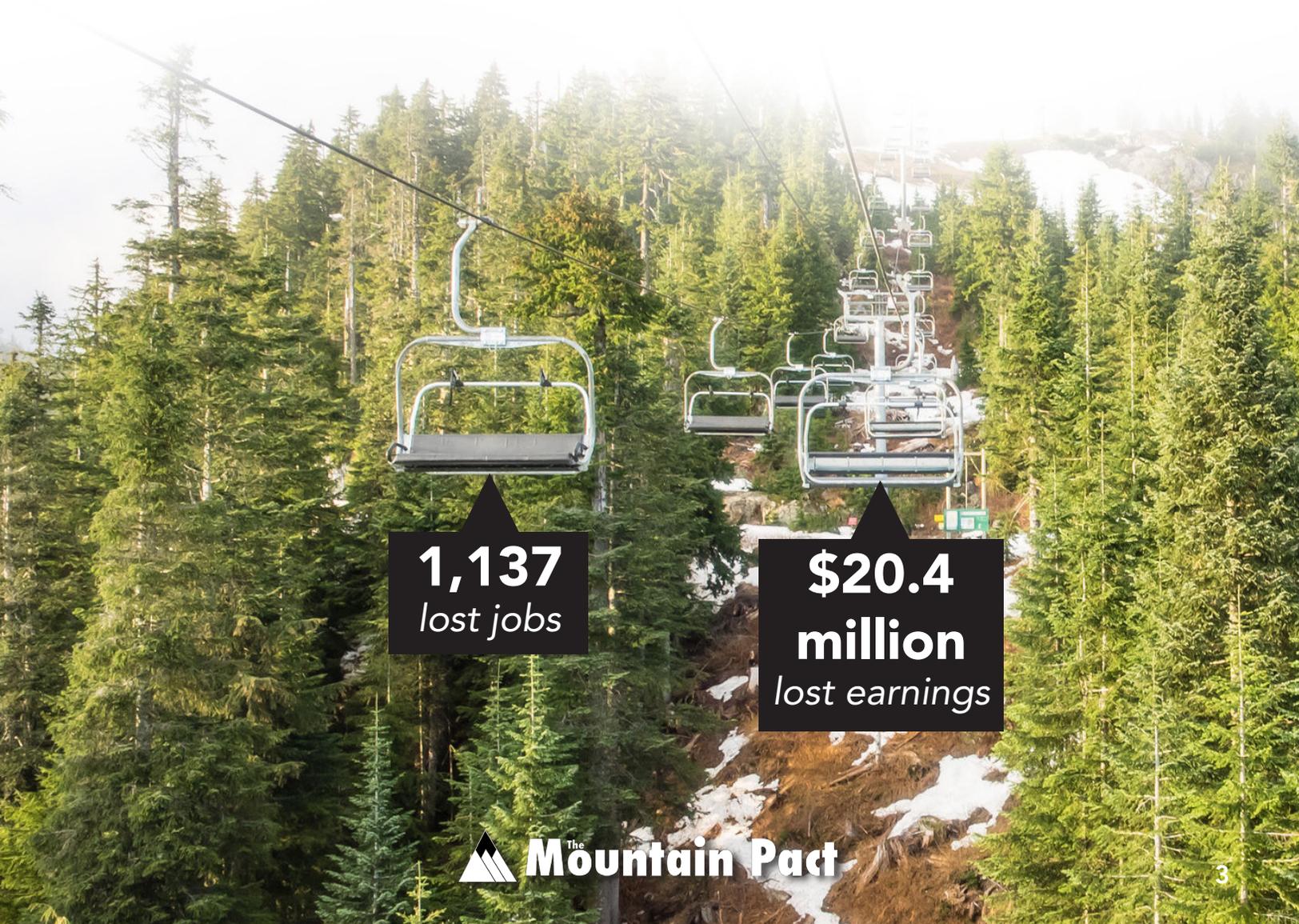
snowfall, shifts in precipitation from snow to rain, earlier snowmelt, increased peak spring flows, and decreased summer flows.⁴ These dynamics have also made the West increasingly vulnerable to wildfires, which are weighing more and more on federal, state and local budgets in mountain communities and towns across the West.

- Climate models based on a 2.4C warming show a 17% reduction in runoff in the Colorado River Basin, which leads to a 40% reduction in basin storage.⁵
- The Sierra Nevada Range in California may experience a 99% loss of its April 1st baseline snowpack, and other western mountain ranges will suffer reduced late-season snowpacks by the end of the century.⁶ The 2015 Sierra snowpack is currently at 5%, the lowest ever recorded.
- In the last 17 years, wildfires in the Mountain West have increased in magnitude and frequency: **the fire season is 78 days longer, there are four times as many fires, it takes five times longer to put out the average fire, and nearly seven times as much area is being burned.**⁷

These and many other impacts from climate change threaten the Mountain West's economic prosperity. Mountain communities benefit from tourism related to outdoor recreation, which brings millions of dollars in jobs, salaries, tax receipts and profits to the Western states. In addition, outdoor recreation catalyzes related business activities. Less snow and more wildfires means fewer tourists — affecting dining, lodging, and entertainment to financial advising, health care, and public services. Reductions in these industries can cripple a mountain community.

Already, with warming conditions, mountain town economies are feeling the pinch. For example:

- In the United States, approximately 7 to 9 million acres burn each year and some studies predict a 50 -100 % increase in area burned in the United State by 2050, with the most severe changes occurring in Western states. Estimates calculate that climate change could add \$65 billion to the total cost of U.S wildfires, which is presently between \$20 billion and \$125 billion annually.⁸
- In 2002, when Colorado's reservoir shortage was only 48% of average levels, the state lost an estimated \$1 billion in revenue and 3,000 jobs as a result of drought conditions in rafting and other tourism-related jobs.⁹
- Climate change induced warming will mean that Washington State will face fire suppression cost increases of over 50% by 2020 & over 100% by 2040, raising the expenses to \$93 million and \$124 million respectively.¹⁰
- In 2030, the projected **15% decrease in snowpack is estimated to result in \$120 million annually in lost output for Summit County, Utah** (home to Park City Ski Area). This output includes the direct effects or impacts of visitors spending money (e.g, buying dinner), indirect effects such as the restaurant buying food from a distributor, and the induced effects caused by changes in the household income and spending of the restaurant workers. **This lost output is estimated to result in 1,137 lost jobs and \$20.4 million in the form of lost earnings** (or labor income).¹¹



1,137
lost jobs

\$20.4
million
lost earnings

COAL COMPANIES NEED TO PAY THEIR FAIR SHARE



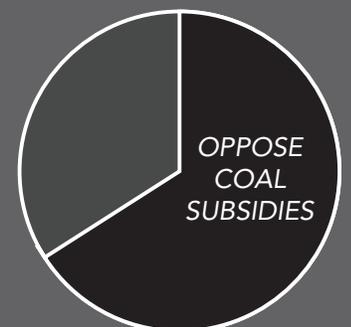
Coal extracted from federal land is currently a significant source of energy in the United States, yet many coal companies are exploiting loopholes and subsidies that allow them to pay far less than is owed to the taxpayers. The Department of Interior's Office of Natural Resources Revenue has proposed reforms to how royalties are collected on coal, and Secretary of the Interior Sally Jewell has called for "an honest and open conversation about modernizing the federal coal program."

By eliminating subsidies, closing loopholes and requiring coal companies to pay royalties on the true market price of coal, rather than on the hidden price at which coal is first sold to a middleman or a subsidiary, the government will collect a fair return for U.S. taxpayers and western states — an estimated \$1 billion per year split between the federal government and states.

- A recent poll commissioned by The Mountain Pact and the Center for American Progress showed that 73% of Americans favor a proposal to require coal companies to pay royalties or fees for coal mined on national public lands based on the true market price.¹²
- Nearly two-thirds of Americans oppose providing federal subsidies to companies that mine coal on America's public lands, including 67% of Democrats, 66% of independents, and 62% of Republicans. By a nearly two-to-one margin, voters want these subsidies ended.

Western mountain communities are facing economic and environmental damages from climate-related catastrophic wildfire, floods and reduced snowpack. These costs continue to increase while coal companies are able to deprive many western states (and taxpayers across the country) of their fair share of the revenues from coal leased on federal land. The Department of Interior must address this discrepancy by eliminating subsidies and requiring coal companies to pay royalties on the true market price of coal.

**Nearly two-thirds of Americans
oppose providing federal subsidies
to companies that mine coal on
America's public lands**



References

- ^{1,2}Mark Haggerty, “An Assessment of U.S. Federal Coal Royalties Current Royalty Structure, Effective Royalty Rates, and Reform Options,” 2015, available at <http://headwaterseconomics.org/wphw/wp-content/uploads/Report-Coal-Royalty-Valuation.pdf>.
- ^{3,4}Wallace, R.J., K. DeVore, P. Lifton-Zoline, and J. Lifton-Zoline. “Sustainable Mountain Development North American Report from Rio 1992 and Beyond.” Aspen Institute Telluride Institute, 2012.
- ⁵Klein, R., W. Travis. “Socioeconomic Impacts and Adaptation Strategies: Assessing Research on Drought, Climate Change and Recreation.” Western Water Assessment, 2012.
- ^{6,7}Morris, D., M. Walls. “Climate Change and Outdoor Recreation Resources” Resources for the Future, 2009.
- ⁸Howard, Peter. “Flammable Planet: Wildfires and the Social Cost of Carbon” The Cost of Carbon Project, 2014.
- ⁹Prabhakar, S., K. Schoengold. “Potential Economic Impact of Drought on Rafting Activity” Cornhuskers Economics, 2008.
- ¹⁰Ruth, M., D. Coelho, D. Kartnikov. “The US Economic Impacts of Climate Change and the Costs of Inaction”. Center for Integrative Environmental Research, 2007.
- ¹¹Lazar, B. “Climate Change in Park City: An Assessment of Climate, Snowpack, and Economic Impacts”. Stratus Consulting, Inc., 2009.
- ¹²Hart Research Associates, “Public Opinion on Coal Mining Reforms on Public Lands,” 2015, available at <http://www.themountainpact.org/public-opinion-on-coal-mining-reforms-on-public-lands>.

